CHEUK HIN (ALVIN) LI

SUMMARY

- Proven fast-learner with strong leadership skills
- 2 years of experience in Java
- 1 year of experience in Python, HTML+CSS+JS
- Working knowledge in C#, C++ and SolidWorks, Keras (Tensorflow)
- Currently learning ReactJS

EDUCATION

University of Waterloo
Sept. 2019 to Present
BASc (Biomedical Engineering) Candidate

- President's Scholarship
- China HK Entrance Scholarship
- CPAC Scholarship
- Students Making an Impact Scholarship

INTERESTS

- Enjoys video-editing using Adobe After Effects and creating graphics using Adobe Photoshop
  - Designed and sold class apparel (sweaters, patches and hats)

(647) 998-3024
ch35li@edu.uwaterloo.ca
ID#20819865
linkedin.com/in/alvin-lch
alvanli.github.io

PROJECTS

Buddy — Jan. 2020 – Present

A Google Chrome extension that provides user with weather information and sets up reminders through a chatbot interface using **ReactJS** and Dialogflow

ML Projects using Python Keras (Tensorflow Backend) — Jul. 2019 – Present

LSTM: Generate text and recognize positivity based on personal conversation history. Computed the most positive person and month.

Machine Vision Controller: Recognize hand gestures and output signals through **Arduino**. Created **Python GUI** to collect bounding box data for training model.

Googly Eyes: Utilizes **OpenCV** to add googly eyes to all people in an image.

Assistive Reaching Member (A.R.M.) — Sep. 2019 – Dec. 2019

Created a robotic arm controlled by a joystick within two weeks using **Arduino**, kiCAD (for PCB manufacturing) and **Solidworks**

Use inverse kinematics to compute angles for servos in order for arm to reach a certain position

Various Java and Greenfoot Group Projects — Sep. 2017 – Jun. 2019

Diner Dash Kitchen Simulation Game and *Rusty River Escape Room*: Employed the use of data structures such as Linked-list, Queue and Hashmap

Arkham Escape: Employed the use of OOP to recreate a classic jumping game

EXPERIENCE

Haptics Team Member — Sep. 2019 – Present
BioMechatronics, Waterloo, ON

- Develop wireless gait tracker using **Arduino**
- Design GUI for displaying live-graphs using **Python**
- Teach junior members to use **Python** and **Matplotlib**

Linear Induction Motor Team Member — Sep. 2019 – Present
Waterloop, Waterloo, ON

- Design coil-winding mechanism for motor to replace traditional manual coiling using **Solidworks**
- Improve mechanism's efficiency and safety by considering material interactions
- Reduce expenses by optimizing the use of existing materials and 3D printing

Research Student — Jun. 2018 – Present
Hospital for Sick Children (SickKids), Toronto, ON

- Investigate the relationship betweeen the presence of proteins and the thickness of biofilm by analyzing images using **ImageJ**, **Comstat2** and **Volocity**
- Automate analysis using Python, reducing time spent by 50%
- Created a lab website using Wordpress and **HTML+CSS** within 5 days

Vice President of External Affairs — Aug. 2017 – Jul. 2019
Project 5K, Toronto, ON

- Doubled volunteer opportunities by cultivating new relationships with local organizations and government bodies
- Crafted over 70 pages of graphics using **Adobe Photoshop** and **Illustrator**
- Tripled social media following through new social media campaigns
- Created front-end of website (project5k.ca) using Wix